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June 14, 2004

WRITER'S DIRECT NUMBER: (202) 772-8851 INTERNET ADDRESS: RSCHWART@SKGF.COM

Art Unit 1614

Commissioner for Patents PO Box 1450 Alexandria, VA 22313-1450

Re:

U.S. Utility Patent Application

Application No. 10/721,338; Filed: November 26, 2003

For: Caspase Inhibitors and the Use Thereof

Inventors:

Cai et al.

Our Ref:

1735.0350004/RWE/RAS

Sir:

Transmitted herewith for appropriate action are the following documents:

- 1. Information Disclosure Statement Under 37 C.F.R. § 1.197(b);
- 2. Twenty-six (26) pages of Form PTO-1449 citing one hundred thirty-nine (139) references;
- 3. A copy of five (5) cited references; and
- 4. One (1) return postcard.

It is respectfully requested that the attached postcard be stamped with the date of filing of these documents, and that it be returned to our courier. In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

Commissioner for Patents June 14, 2004 Page 2

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Robert A. Schwartzman, Ph.D.

Agent for Applicants Registration No. 50,211

RAS/law Enclosures 272716.1



## THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Cai et al.

Appl. No. 10/721,338

Filed: November 26, 2003

For: Caspase Inhibitors and the Use

Thereof

Art Unit:

1614

Examiner:

To Be Assigned

Atty. Docket: 1735.0350004/RWE/RAS

# Information Disclosure Statement Under 37 C.F.R. § 1.97(b)

Commissioner for Patents Washington, D.C. 20231

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application. Copies of documents AA1-AE3, AL1-AO6, AR1-AS6, AR7-AS20, AR21-AT22, and AS23-AR26 were cited by or submitted to the Office in an Information Disclosure Statement that complies with 37 C.F.R. § 1.98(a)-(c) in Application No. 09/987,417 filed November 14, 2001, which is relied upon for an earlier filing date under 35 U.S.C. § 120. Thus, copies of these documents are not attached. 37 C.F.R. § 1.98(d). Copies of documents AT6, AT20, AR23, AS26, and AT26 are provided.

In accordance with 37 C.F.R. § 1.98(a)(3), Applicants' undersigned representative submits the following concise explanation of the relevance of the non-English language documents, Document Nos. AM3, AO3, AT8 and AT10 cited on Form PTO-1449.

The relevance of document AM3, Japanese Application No. JP 11-1491, published January 6, 1999, can be ascertained by reference to the International Search Report for International Application No. PCT/US00/09319 (Document AR25). An English language abstract of Document AM3 is provided as Document AS25.

Document AO3, Japanese Patent 11-180891, is in the Japanese language. An unverified English language abstract of document AO3 is provided as document AT25.

Document AT8, Hiraoka, J., et al., Jpn. J. Nephrol. 40:276-283 (May 1998), is believed to describe a study which indicates that apoptotic cells are increased in renal amyloidosis and that overexpression of BAX, an inducer of apoptosis, may play an important role in this increase. An English language abstract of this document is provided on page 276.

Document AT10, the Ph.D. Thesis of Johann Lepschy, is believed to disclose a modified Dakin-West procedure for the synthesis of α-benzamidoalkyl trifluoromethyl ketone, including 1,1,1-trifluoro-3-benzamido-2-butanone.

Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not in issue. Applicants have listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith. It is further understood that the Examiner will consider information that had been cited or submitted to the U.S. Patent and Trademark Office in a prior application relied on under 35 U.S.C. § 120. 1138 OG 37, 38 (May 19, 1992).

It is respectfully requested that the Examiner initial and return a copy of the enclosed PTO-1449, and to indicate in the official file wrapper of this patent application that the documents have been considered.

This Information Disclosure Statement is being filed before the mailing of an Office Action on the merits. No statement or fee is required.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Robert A. Schwartzman, Ph.D.

Agent for Applicants Registration No. 50,211

Date: June 14, 2004

1100 New York Avenue, N.W. Washington, D.C. 20005-3934 (202) 371-2600

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FORM PTO-1449

INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO. 1735.0350004/RWE/BLS APPLICATION NO. 10/721,338

APPLICANTS Cai et al.

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				U.S.	PATENT DOCUMENTS			
EXAMINER INITIAL			UMENT BER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA1	4,1	53,688	05/08/1979	Domicoli et al.			02/09/1978
	AB1	4,5	18,528	05/21/1985	Rasnick, D.W.			02/06/1984
	AC1	5,2	52,463	10/12/1993	Nelson et al.		.]	06/22/1990
	AD1	5,4	16,013	05/16/1995	Black et al.			02/28/1994
	AE1	5,4	30,128	07/04/1995	Chapman et al.			11/21/1994
	AF1	5,4	34,248	07/18/1995	Chapman et al.			06/02/1993
	AG1	5,4	62,939	10/31/1995	Dolle et al.			05/07/1993
	AH1	5,5	85,357	12/17/1996	Dolle et al.			01/29/1996
	AI1	5,6	24,672	04/29/1997	Bathurst et al.			06/05/1995
	AJ1	5,6	35,186	06/03/1997	Bathurst et al.			05/30/1995
	AK1	5,6	35,187	06/03/1997	Bathurst et al.			06/06/1995
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EXAMINER INITIAL		DOCUM	MENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL1	EP 0	519 748 A2	12/23/1992	Europe			Yes No
	AM1	WO 93	3/05071	03/18/1993	WIPO			Yes No
	AN1	EP 0	623 592 A1	09/11/1994	Europe			Yes No
	A01	EP 0	618 223 A2	10/05/1994	Europe			Yes
	AP1	WO 96	5/03982	02/15/1996	WIPO			Yes No
			OTHER (Incl	uding Author,	Title, Date, Pertinent Pa	ages, etc.)		
	AR	1	Alnemri, E Press (199		Human ICE/CED-3 Protease	Nomenclatur	ce," Cell	87:171, Cell
	An, S. and Knox, K.A., "Ligation of CD40 rescues Ramos-Burkitt lymphoma B cells from calcium ionophore- and antigen receptor-triggered apoptosis by inhibiting activation of the cysteine protease CPP32/Yama and cleavage of its substrate PARP," FEBS Lett. 386:115-122, Federation of European Biochemical Societies (1996).							
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FORM PTO-1449

INFORMATION DISCLOSURE STATEMENT

communication to Applicant.

ATTY. DOCKET NO.
1735.0350004/RWE/BLS
10/721,338

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Cai et al.

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10/721,338

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				U.S.	PATENT DOCUMENTS		1	·	
EXAMINER INITIAL			DATE	NAME	CLASS	SUB- CLASS	FILING DATE		
	AA2	5,6	77,283	10/14/1997	Dolle et al.			10/16/1996	
	AB2	5,7	56,465	05/26/1998	Sleath et al.			05/12/1995	
	AC2	5,8	43,904	12/01/1998	Bemis et al.			12/20/1995	
	AD2	5,8	66,545	02/02/1999	Hagmann et al.			08/08/1994	
	AE2	5,8	69,519	02/09/1999	Karanewsky et al.			12/16/1996	
	AF2	5,8	71,724	02/16/1999	Iwata et al.			06/07/1995	
	AG2	5,8	77,197	03/02/1999	Karanewsky et al.			09/12/1997	
	AH2	5,9	32,549	08/03/1999	Allen et al.			04/27/1998	
	AI2	6,1	36,787	10/24/2000	Black et al.			03/16/1998	
	AJ2	6,1	53,591	11/28/2000	Cai et al.			03/16/1999	
	AK2	6,1	84,210	02/06/2001	Keana et al.			03/16/1999	
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	AL2	WO 96	5/20721	07/11/1996	WIPO			No	
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	AM2	WO 96/33209 A1		10/24/1996	WIPO			No	
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	AN2	WO 98	3/10778	03/19/1998	WIPO		+	No	
	A02	WO 98	3/11109	03/19/1998	WIPO			Yes	
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	AP2	WO 98	3/41232	09/24/1998	WIPO			No	
			OTHER (Incl	luding Author,	Title, Date, Pertinent E	Pages, etc.)			
	AR	2	Cleaves Pr	ro-interleukir	Pre-aspartate-specific Pro n-1β," <i>J. Biol. Chem. 264</i> plecular Biology, Inc. (19	:5323-5326,	Human Leu The Ameri	kocytes That can Society	
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			1773, 1116	0.101041 0001	(2222)				

APPLICATION NO. ATTY. DOCKET NO. 1735.0350004/RWE/BLS 10/721,338 FORM PTO-1449 APPLICANTS Cai et al. INFORMATION DISCLOSURE STATEMENT FILING DATE GROUP November 26, 2003 To Be Assigned U.S. PATENT DOCUMENTS EXAMINER CLASS SITE -FILING DATE DOCUMENT NUMBER DATE NAME INITIAL CLASS 02/06/2001 Karanewsky et al. 06/30/1999 AA3 6,184,244 B1 AB3 6,200,969 B1 03/13/2001 Fritz et al. 09/12/1997 6,201,118 B1 03/13/2001 Robidoux et al. 08/19/1998 AC3 AD3 6,242,422 06/05/2001 Karanewsky et al. 10/22/1998 04/07/2000 AE3 6,355,618 03/12/2002 Cai et al. 11/14/2001 AF3 6,716,818 B2 04/06/2004 Cai et al. 08/28/2000 AG3 6,495,522 B1 12/17/2002 Wang et al. AH3 6,566,338 B1 05/20/2003 Weber et al. 10/11/2000 08/31/2000 AI3 6,596,693 B1 07/22/2003 Keana et al. 03/16/2000 6,620,782 B1 09/16/2003 Cai et al. AJ3 ΑK FOREIGN PATENT DOCUMENTS DOCUMENT SUB-EXAMINER CLASS CLASS TRANSLATION COUNTRY INITIAL NUMBER DATE Yes WO 98/16502 A1 04/23/1998 WIPO No Yes JP 11-1491 01/06/1999 No AM3 Japan Yes WO 99/18781 04/22/1999 WIPO No AN3 Yes No AO3 JP 11-180891 07/06/1999 Japan Yes WO 99/47154 09/23/1999 WIPO No OTHER (Including Author, Title, Date, Pertinent Pages, etc.) Braun, J.S. et al., "Neuroprotection by a caspase inhibitor in acute bacterial AR 3 meningitis," Nat. Med. 5:298-302, Nature Publishing Group (March 1999). Chabrier, P.-E. et al., "BN 80933, a dual inhibitor of neuronal nitric oxide synthase and lipid peroxidation: A promising neuroprotective strategy, " Proc. AS 3 Natl. Acad. Sci. USA 96:10824-10829, The National Academy of Sciences (September 1999). Conaldi, P.G. et al., "HIV-1 Kills Renal Tubular Epithelial Cells In Vitro by Triggering an Apoptotic Pathway Involving Caspase Activation and Fas AT Upregulation, " J. Clin. Invest. 102:2041-2049, The American Society for Clinical Investigation, Inc. (December 1998). DATE CONSIDERED EXAMINER

INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO. 1735.0350004/RWE/BLS	APPLICATION NO. 10/721,338
APPLICANTS Cai et al.	
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	AL4	WO 99	/56765	11/11/1999	WIPO			No 	
	AM4	WO 00	/01666	01/13/2000	WIPO			Yes No	
	AN4				WIPO			Yes No	
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	A04	WO 00	/32620 A1	06/08/2000	WIPO			No Yes	
	AP4		/55114 A1	09/21/2000	WIPO			No	
			OTHER (Inclu	iding Author,	Title, Date, Pertinent Pag	es, etc.)			
	del Pozo, O. and Lam, E., "Caspases and programmed cell death in the hypersensitive response of plants to pathogens," <i>Curr. Biol. 8</i> :1129-1132, Current Biology Ltd. (September 1998).								
	AS	<u>4</u>	di Giovine,	di Giovine, F.S. and Duff, G.W., "Interleukin 1: the first interleukin," <i>Immunol.</i> Today 11:13-14, Elsevier Science Publishers Ltd. (1990).					
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	AL5	WO 00	/55127 A1	09/21/2000	WIPO				Yes No	
	AM5	WO 00	/61542	10/19/2000	WIPO				Yes No	
	AN5	WO 01	/10383 A2	02/15/2001	WIPO				Yes No	
	A05	WO 01	/42216 A2	06/14/2001	WIPO				Yes No	
	AP5	WO 01	/16093 A1	03/08/2001	WIPO				Yes No	
			OTHER (Incl	uding Author,	Title, Date, Pertinent	Pages,	etc.)			
	AR	<u>5</u>	Ketones as	Potent Time-	Aspartate-Based Peptide Dependent Inhibitors of 4, American Chemical Soc	Interl	eukin-:	alorobenzo 1β-Conver	oyl)oxy)methyl ting Enzyme,"	
	AS	<u>5</u>	yl)oxy)met Significar	Dolle, R.E. et al., "Aspartyl $\alpha$ -((1-Phenyl-3-(trifluoromethyl)-pyrazol-5-yl)oxy)methyl Ketones as Interleukin-1 $\beta$ Converting Enzyme Inhibitors. Significance of the $P_1$ and $P_3$ Amido Nitrogens for Enzyme-Peptide Inhibitor Binding," J. Med Chem. 37:3863-3866, American Chemical Society (1994).						
	АТ	<u>5</u>	Inhibitors Acid Leavi	s of Interleuk ing Group for	partyl $\alpha$ -((Diphenylphosp in-1 $\beta$ Converting Enzyme. the Inhibition of Cystei emical Society (1995).	Utili	ty of	the Diphe:	nylphosphinic	
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line through citation if not in conformance and not considered. Include copy of this form with next

#### INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO. 1735.0350004/RWE/BLS	APPLICATION NO. 10/721,338
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	AS	Z	Inhibitor	Graybill, T.L. et al., " $\alpha$ -((Tetronoyl)oxy)- and $\alpha$ -((Tetramoyl)oxy)methyl Ketone Inhibitors of the Interleukin-1 $\beta$ Converting Enzyme (ICE)," Bioorg. Med. Chem. Lett. 7:41-46, Elsevier Science Ltd. (1997).					
	Greenberg, J.T. et al., "Programmed Cell Death in Plants: A Pathogen-Triggered Response Activated Coordinately with Multiple Defense Functions," Cell 77:551-563, Cell Press (1994).								
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	Hara, H. et al., "Inhibition of interleukin 1β converting enzyme family proteases reduces ischemic and exitotoxic neuronal damage," Proc. Natl. Acad. Sci. USA 94:2007-2012, The National Academy of Sciences (1997).							ly proteases Sci. USA
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